

In the claims: The claims are as follows.

1. (Previously presented) A method for registering a user equipment terminal with a multimedia network, so as to allow the user equipment terminal to access, over a digital communication system, a multimedia network service to which the user equipment terminal is subscribed, the method comprising:

a serving call session control function of the multimedia network sending an authentication vector request message to a home subscriber server, and

the home subscriber server responding by providing in an authentication vector request response message a field indicating a list of services to which the user equipment terminal is subscribed along with either information that allows establishing security associations for each such service or information that could be used as keying material or other input for other security mechanisms specific to each service.

2. (Previously presented) The method as in claim 1, wherein in responding to the authentication vector request response message, the serving call session control function of the multimedia network adds the information included in the authentication vector request response message to an authorization challenge message and forwards it to an interrogating call session control function of the multimedia network.

3. (Previously presented) The method as in claim 2, wherein when the interrogating call session control function receives the authorization challenge message, it forwards the message as a forwarded authorization challenge message to a proxy call session control function of the multimedia network, which parses the forwarded authorization challenge message, generates security

policy database entries and corresponding security associations for both the proxy call session control function and the user equipment terminal, inserts its security policy database entries in its security policy database and corresponding security associations into its security association database, and provides in an updated authorization challenge message for the user equipment terminal the security policy database entries and corresponding security associations.

4. (Previously presented) The method as in claim 3, wherein after receiving the updated authorization challenge message, the user equipment terminal inserts the security policy database entries into its security policy database and inserts the corresponding security associations into its security association database.

5. (Previously presented) The method as in claim 4, further comprising keeping a register for all services to allocate numbers used to derive keys for each service or part of a service.

6. (Previously presented) The method as in claim 5, wherein the keys are an integrity key and a cipher key and are derived by applying a mapping to an argument including the number allocated to the respective service or part of a service by the register being kept.

7. (Previously presented) A method for registering a user equipment terminal with a multimedia network so as to allow the user equipment terminal to access, over a digital communication system, a multimedia network service to which the user equipment terminal is subscribed, the method comprising:

a proxy call session control function of the multimedia network communicating to the user equipment terminal an authorization challenge message, wherein the authorization challenge message includes at least one security policy database entry and a corresponding security association derived by the proxy call session control function from information provided to the proxy call session control function indicating services to which the user equipment terminal is subscribed along with either information that allows establishing security associations for each such service or information that could be used as keying material or other input for other security mechanisms specific to each service, and

the user equipment terminal inserting the at least one security policy database entry into its security policy database and the corresponding security association into its security association database, so that for a predetermined time any traffic between the user equipment terminal and the proxy call session control function is secure for the services to which the user equipment terminal is subscribed.

8. (Previously presented) The method as in claim 7, further comprising keeping a register for all services to allocate numbers used to derive keys for each service or part of a service.

9. (Previously presented) The method as in claim 8, wherein the keys are an integrity key and a cipher key and are derived by applying a mapping to an argument including the number allocated to the respective service or part of a service by the register being kept.

10. (Previously presented) A user equipment terminal, comprising:

means, responsive to an authorization challenge message from a proxy call session control function of a multimedia network, wherein the authorization challenge message includes at least one security policy database entry and a corresponding security association derived by the proxy call session control function from information provided to the proxy call session control function indicating services to which the user equipment terminal is subscribed along with either information that allows establishing security associations for each such service or information that could be used as keying material or other input for other security mechanisms specific to each service, for inserting the at least one security policy database entry into its security policy database, and

means, also responsive to the authorization challenge message, for inserting the corresponding security association into its security association database.

11. (Previously presented) A multimedia network comprising a serving call session control function and a home subscriber server, wherein the serving call session control function includes means for sending an authentication vector request message to the home subscriber server, and the home subscriber server includes means for providing, in response to the authentication vector request message, an authentication vector request response message including a field indicating a list of services to which a user equipment terminal is subscribed along with either information that allows establishing security associations for each such service or information that could be used as keying material or other input for other security mechanisms specific to each service.

12. (Previously presented) A user equipment terminal, comprising:

a first application program interface, responsive to an authorization challenge message from a proxy call session control function of a multimedia network, wherein the authorization challenge message includes at least one security policy database entry and a corresponding security association derived by the proxy call session control function from information provided to the proxy call session control function indicating services to which the user equipment terminal is subscribed along with either information that allows establishing security associations for each such service or information that could be used as keying material or other input for other security mechanisms specific to each service, for inserting the at least one security policy database entry into its security policy database, and

a second application program interface, also responsive to the authorization challenge message, for inserting the corresponding security association into its security association database.

13. (Previously presented) A multimedia network, comprising a serving call session control function and a home subscriber server, wherein the serving call session control function is configured to send an authentication vector request message to the home subscriber server, and the home subscriber server is configured to provide to the call session control function, in response to the authentication vector request message, an authentication vector request response message including a field indicating a list of services to which a user equipment terminal is subscribed along with either information that allows establishing security associations for each such service or information that could be used as keying material or other input for other security mechanisms specific to each service.

14. (Previously presented) The multimedia network as in claim

13, further comprising an interrogating call session control function, and wherein in response to the authentication vector request response message, the serving call session control function is configured to add the information included in the authentication vector request response message to an authorization challenge message and to forward it to the interrogating call session control function.

15. (Previously presented) The multimedia network as in claim 14, further comprising a proxy call session control function, and wherein the interrogating call session control function is configured so that in response to the authorization challenge message, it forwards the message as a forwarded authorization challenge message to the proxy call session control function, which is configured to then parse the forwarded authorization challenge message, generate security policy database entries and corresponding security associations for both the proxy call session control function and the user equipment terminal, insert its security policy database entries in its security policy database and corresponding security associations into its security association database, and provide in an updated authorization challenge message for the user equipment terminal the security policy database entries and corresponding security associations.

16. (Previously presented) The multimedia network as in claim 13, further comprising a register for all services to allocate numbers used to derive keys for each service or part of a service.

17. (Previously presented) The multimedia network as in claim 16, wherein the keys are an integrity key and a cipher key both derived from a mapping to an argument including the number

Attorney Docket No.: 944-1.68  
Serial No.: 10/082,534

allocated to the respective service or part of a service included  
in the register.